UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,601	07/30/2003	Lance Jeffrey Gay	NG(MS)-6671	8687

26294 7590 05/18/2007

TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.
1300 EAST NINTH STREET, SUITE 1700
CLEVEVLAND, OH 44114

EXAMINER	
CHANKONG, DOHM	

ART UNIT	PAPER NUMBER
2152	

MAIL DATE	DELIVERY MODE
05/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/630,601	GAY ET AL.	
	Examiner	Art Unit	
	Dohm Chankong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed..

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/30/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1> Claims 1-27 are presented for examination.

2> This is a non-final rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3> Claims 13 and 21 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Claims 13 and 21 are directed towards computer readable mediums. According to Applicant's specification, a computer readable medium includes any form of electrical, optical or acoustical propagated signals [0059].

Claims that are broad enough to cover propagated signals do not constitute statutory subject matter. Propagated signals fail to be structurally and functionally interconnected with the system in such a manner to enable the system to act as component and realize any usefulness. Therefore, claims 13 and 21 fail to fall within a statutory category are properly rejected under §101.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4> Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 10 lacks proper antecedent basis : "the connection". Claim 1 refers to "one of the TCP connection" and a "plurality of TCP connections." It is unclear to what connection the "connection" in claim 10 refers.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5> Claims 22, 23, 25 and 26 are rejected under 35 U.S.C §102(e) as being anticipated by Lassen et al, U.S Patent No. 7.072.971 ["Lassen"].

6> As to claim 22, Lassen discloses a method of transferring a file over a network comprising:

dividing a source file into a plurality of blocks at a first entity [column 5 «lines 54-55» | column 10 «lines 4-12»];

establishing a plurality of data connections between the first entity and a second entity [column 9 «lines 56-62» where : Lassen's channels correspond to data connections];

assigning a block from the plurality of blocks to a respective data connection of the plurality of data connections [column 6 «lines 31-40» where : Lassen discloses transmitting different blocks over different channels. | column 10 «lines 4-12»]; and

transmitting the plurality of blocks from the first entity to the second entity, each block being transmitted over its assigned data connection [column 10 «lines 4-12 and lines 53-54» | column 25 «lines 2-17»].

7› As to claim 23, Lassen discloses:

concatenating the plurality of blocks, including a first block, into a destination file during the transmission of at least one other block [column 11 «lines 56-64» where : Lassen's reassembly of the blocks is analogous to concatenating the blocks];

concatenating a block received at the second entity when all blocks having an ordinal identifier prior to the received block have been concatenated into the file [column 14 «lines 6-15» | column 18 «lines 65-67» where : the assembler uses identifiers to sort the blocks and assemble the complete file in the correct order]; and

buffering a block received at the second entity when at least one block having an ordinal identifier prior to the received block has not been concatenated into the file [column 11 «lines 56-64» | column 17 «lines 15-24»].

8> As to claims 25 and 26, as they do not teach or further define over previously claimed limitations, they are similarly rejected for at least the same reasons set forth for claims 23 and 24.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9> Claims 1-4, 13-17, 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lassen, in view of Kurosawa et al, U.S Patent Publication No. 2004|0049367 ["Kurosawa"].

10> As to claim 1, Lassen discloses a client system [Figure 3 «item 102» where : Lassen's server is analogous to Applicant's claimed client system. The term "client system" does not prohibit the interpretation set forth with respect to Lassen's server because Lassen's server has the same functionality as claimed for the client system], comprising:

a file partitioner that divides a file into a plurality of blocks [Figure 3 «item 220» | column 10 «lines 4-12»];

a client control application operative to initiate a plurality of logical connections [Figure 3 «item 230» | column 8 «lines 34-40»] and to assign each of the plurality of blocks to

one of the connections of the plurality of connections, such that each block is transmitted via its assigned connection [column 6 «lines 31-40» where : Lassen discloses transmitting different blocks over different channels. | column 10 «lines 4-12»].

Lassen does not expressly disclose that the logical connections are TCP connections.

11> In the same field of invention, Kurosawa is directed towards a communication system whereby a file is divided into a plurality of blocks and transmitted over a multiple channels [0276]. Kurosawa discloses logical channels implemented with TCP [0018]. Thus it would have been obvious to one of ordinary skill in the art to have reasonably inferred from Kurosawa's teaching that Lassen's logical channels are TCP connections. Further, TCP connections are well known in the art especially in establishing client-server communications.

12> As to claim 2, Lassen discloses the plurality of blocks being transmitted to a server system [Figure 3 «item 104» where : Lassen's client corresponds to a server system. The term "server system" does not prohibit interpreting Lassen's client computer as a server system since Lassen's client has the same functionality as claimed for a server system], the server system comprising:

a server control application operative to monitor the plurality of TCP connections and to receive the plurality of blocks via the plurality of TCP connections, each block having an associated ordinal identifier [Figure 3 «item 250» | column 5 «lines 54-67» where : Lassen's

blocks are "sequentially numbered" | see rejection of claim 1 with respect to TCP connections - Kurosawa];

a buffer that stores the received blocks [Figure 3 «item 255»];

a concatenation control that retrieves a received block from the buffer and concatenates the received block into a file once blocks having an ordinal identifier prior to the received block have been received [Figure 3 «items 260, 270, 280» | column 11 «lines 56-64» | column 17 «lines 15-24»].

13› As to claim 3, Lassen discloses a buffer that stores the plurality of blocks for subsequent transmission [column 10 «lines 36-40» | column 15 «lines 1-7»].

14› As to claim 4, Lassen discloses the plurality of blocks being assigned to the plurality of TCP connections (see rejection of claim 1 - Kurosawa) in a predetermined order [column 15 «lines 30-43» | column 25 «lines 2-17»].

15› As to claim 13, as it does not teach or further define over previously claimed limitations, it is similarly rejected for at least the same reasons set forth for claim 1.

16› As to claims 14 and 15, as they do not teach or further define over previously claimed limitations, they are similarly rejected for at least the same reasons set forth for claims 1 and 2.

17> As to claim 16, Lassen discloses the server control application being operative to extract control data from at least one of the received blocks [column 17 «lines 15-61» where : Lassen's keys and block index are analogous to control data].

18> As to claim 17, Lassen discloses concatenation control is operative to monitor the buffer for blocks consecutive and subsequent to a received block [column 5 «lines 54-55» | column 18 «lines 60-67»].

19> As to claim 24, Lassen does not expressly disclose utilizing transmission control protocol (TCP) to transmit the assigned blocks.

20> Lassen does disclose that the channels may be either physical or logical channels [column 8 «lines 34-40»]. Kurosawa discloses logical channels implemented with TCP [0014]. Thus it would have been obvious to one of ordinary skill in the art to have reasonably inferred from Kurosawa's teaching that Lassen's logical channels are TCP connections. Further, TCP connections are well known in the art especially in establishing client-server communications.

21> As to claim 27, as it does not teach or further define over previously claimed limitations, it is similarly rejected for at least the same reasons set forth for claim 24.

22> Claim 5 is rejected under 35 U.S.C §103(a) as being unpatentable over Lassen and Kurosawa, in further view of Payne et al, U.S Patent No. 6.021.433 ["Payne"].

23> As to claim 5, Lassen does not expressly disclose providing email notification of the status of the transmission of blocks over the plurality of TCP connections to at least one remote location.

24> In the same field of invention, Payne is directed towards a method of data transmission including partitioning a data file into a plurality of packets [Figure 17]. Payne discloses providing email notification of the status of the transmission of these packets over the connections to at least one remote location [Figure 13 | column 29 «line 65» to column 30 «line 33»]. Providing email alerts as claimed is well known in the art.

It would have been obvious to one of ordinary skill in the art to incorporate email notification functionality into Lassen's data transmission system. One would have been motivated to provide such a modification to enhance the functionality of Lassen's system to allow users to be alerted to the status of data transmissions.

25> Claim 6 is rejected under 35 U.S.C §103(a) as being unpatentable over Lassen and Kurosawa, in further view of Hoang, U.S Patent Publication No. 2002|0026501.

26> As to claim 6, Lassen does not expressly disclose automatically reinitiating a TCP connection if a TCP connection is prematurely terminated.

27> In the same field of invention, Hoang is directed towards an on-demand system that divides a data file into a plurality of data blocks [0010, 0030]. Hoang discloses Hoang discloses automatically reinitiating a TCP connection if a TCP connection is prematurely terminated [0029 where : Hoang discloses that when a channel fails, a new channel is engaged in order to resume service]. It would have been obvious to one of ordinary skill in the art to incorporate Hoang's teachings into Lassen's data transmission over channels system. Lassen's system would be improved by enabling a layer of fault tolerance - data transmissions can be resumed when certain channels fail.

28> Claim 7 is rejected under 35 U.S.C §103(a) as being unpatentable over Lassen and Kurosawa, in further view of O'Neil et al, U.S Patent No. 6.404.745 ["O'Neil"].

29> As to claim 7, Lassen does not expressly disclose pausing at least one of the plurality of TCP connections to allow a lagging connection access to the available bandwidth.

It should be noted that language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. MPEP §2106(II)(C). Statements of intended use or field of use are examples of language that may raise a question as to the limiting effect of the language in a claim. Id.

Here, the limitation of "allow(ing) a lagging connection access to the available

bandwidth" is give no patentable weight because it is merely directed towards intended use of the functionality of pausing the plurality of TCP connections.

30> O'Neil discloses pausing at least one of the plurality of TCP connections (channels) [column 5 «lines 51-62»]. It would have been obvious to one of ordinary skill in the art to incorporate O'Neil's teachings into Lassen's data transmission system. Suspending communications over a communication channel is a well known feature in the art. One would have been motivated to incorporate the suspend feature into Lassen to enable suspension of communications.

31> Claims 8-11 and 18-20 are rejected under 35 U.S.C §103(a) as being unpatentable over Lassen and Kurosawa, in further view of Dougall et al, U.S Patent Publication No. 2003|0093485 ["Dougall"].

32> As to claim 8, Lassen does not expressly disclose a GUI that provides status information to a user.

33> In the same field of invention, Dougall is directed towards data transmission over a plurality of channels whereby a client can receive information over the plurality of channels [abstract]. Dougall discloses providing a graphical user interface that provides status information to a user [Figures 6 and 7]. GUIs such as the one claimed by application are rather ubiquitous and extremely well known in the art.

It would have been obvious to one of ordinary skill in the art to incorporate a GUI such as the one taught by Dougall into Lassen's data transmission system. One would have been motivated to combine the references to enhance the functionality of Lassen's system by providing status information to a user about a particular channel such as the maximum bandwidth of the channel and other such information [see Dougall, 0093].

34> As to claim 9, Lassen and Dougall do not expressly disclose an "Abort" button that ends transmission of the plurality of blocks. However, Lassen does disclose that a user can stop serving files [column 7 «lines 11-13»]. This teaching implies that the user has some means to end transmission of the plurality of blocks. Combined with Dougall's teaching of a GUI, it would have been obvious for one of ordinary skill in the art to have reasonably inferred the use of an interface to stop serving files.

35> As to claim 10, Lassen does not expressly disclose a configuration routine that allows a user to specify a bandwidth to be used in the connection but does disclose that the user can change the rate of one or more of the files being currently served [column 7 «lines 11-14»]. This teaching implies that the user has some means to specify the bandwidth at which the files are served. Combined with Dougall's express teaching of specifying a bandwidth [Figure 4 : "maximum bandwidth" of the channel], it would have been obvious for one of ordinary skill in the art to have reasonably inferred the use of an interface to specify the bandwidth of a particular channel.

36› As to claim 11, Lassen does not expressly status information.

37› Dougall expressly discloses that status information comprising at least one: a bandwidth value associated with the transmission [Figure 16 | 0115]. Providing status information of a downloaded file is extremely well known and ubiquitous in the art. It would have been obvious to one of ordinary skill in the art to incorporate a GUI that provided downloading status of a channel into Lassen's system. One would have been motivated to provide such a modification to allow a user to monitor the bandwidth of the channel [see Dougall, 0115].

38› As to claims 18-20, as they do not teach or further define over define over previously claimed limitations, they are similarly rejected for at least the same reasons set forth for claims 8, 9, and 11. Additionally, Dougall teaches the limitation of a manipulatable display [Figure 16 «item 706»].

39› Claim 12 is rejected under 35 U.S.C §103(a) as being unpatentable over Lassen, Kurosawa and Dougall in further view of Horn et al, U.S Patent Publication No. 2002|0107968 ["Horn"].

40› Lassen does not expressly disclose a configuration routine allowing a user to specify at least one of an averaging period used for deriving the estimated duration for the transmission and a number of TCP connections utilized in the transfer.

41> In the same field of invention, Horn is directed towards the same data transfer system as taught by Lassen [Horn, Figure 2]. Horn discloses allowing a user to specify the number of TCP logical connections (channels) utilized in a transfer [0103 where : Horn discloses that a user can specify the number of channels to join to "increase its reception rate"]. An interface is implied because some means is necessary to allow a user to specify whether or not to join multiple channels.

Combined with Dougall's express teaching of a GUI, it would have been obvious to one of ordinary skill in the art to modify Lassen with Horn's teaching to provide a routine that allows a user to specify a number of TCP connections. One would have been motivated to provide such a modification to enhance the functionality of Lassen's system by providing a user the ability to increase its download rate.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Barrett et al, U.S Patent No. 5.699.532;

Falcon, Jr. et al, U.S Patent No. 5.712.976;

Albert et al, U.S Patent No. 5.793.983;

Baumann et al, U.S Patent Publication No. 2002|0099844;

Osokine, U.S Patent Publication No. 2003|0110206;

Faust et al, U.S Patent Publication No. 2003|0210711;

Rasmussen et al, U.S Patent Publication No. 2003|0226089;

Räsänen, U.S Patent No. 6.674.741;

Riggs et al, U.S Patent Publication No. 2004|0199669;

Yehuda, U.S Patent No. 7.058.056.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942. The examiner can normally be reached on Tuesday-Friday [7:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DC

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER